

A

LECTURE

ON THE

Sulphur Water of Harrogate.

By A. HUNTER, M.D. F.R.S.

Read at the Promenade.

—PRÆSENS NUMEN, INEMPTA SALUS.

Claud.

Printed :

PRINTED BY T. WILSON AND R. SPENCE,
HIGH OUSEGATE.

1806.

Digitized by the Internet Archive
in 2015

<https://archive.org/details/b21922706>

R33434

LECTURE.

I HAVE no hesitation in saying, that there is not in nature a water that is perfectly pure ; by which I mean, a water that has neither taste nor smell, that is clear and transparent, and unmixed with foreign matter. We must, therefore, give up the idea of considering water as perfectly pure and elementary. Water cannot pass through beds of various earths, without taking up something in its passage; neither can it descend in rain, without carrying off from the air some of the heterogeneous particles that are continually floating in it. Providence, however, has in this respect been very kind to us, by so ordering it, that whether the water gets an impregnation from the earth,

or the atmosphere, it still answers the beneficial purpose of contributing to our happiness and comfort, whether simply considered as forming part of our diet, or as a medicine for the restoration of our health.

Some of the ancient philosophers distinguished water by the appellation of *Omni-seminaria*, or seminary of all created things. Diogenes Laërtius tells us, that Thales the Milesian, was the first who taught this doctrine; and since his time, some of the moderns have, in a degree, adopted his system.

Agricola informs us, that not only stones, but also several sorts of fossils and metals, have been discovered in a soft and yielding state; and from thence concludes, that water is the original basis of every natural production. If we examine the embryo state of nature, we shall find a great deal of truth in this observation. The hardest bones of animals were once a soft jelly, and the hardest grains and seeds were once a drop

of viscid water inclosed in a soft and tender pellicle. Milton alludes to this philosophy of 'Thales when he says,

—————On the watery calm
His brooding wings the Spirit of God outspread,
And vital virtue infus'd and vital warmth
Throughout the fluid mass.——

We know, from the conviction of our senses, that neither the animal nor vegetable creation can exist without water ; and for that reason, God has so ordained it, that it is to be found plentifully almost in every region, but in some more plentifully than in others. However, where it is found in the greatest abundance, there the vegetable creation is the most free in the production of those things that concern the welfare and happiness of mankind. A country full of living springs holds out a silent invitation to animated nature ; and in those countries where there is a scarcity of water, we are sure to find a scarcity of men and animals. Most of these springs are applicable to man when in health, but there

are some solely adapted to his use when under disease.

Every extensive kingdom that we know of abounds with medicated springs. Thus we may observe the Author of nature studiously watching over every nation of men. He regards not their complexion. The Ethiopian, the Cherokee, and the Caffrarian, share with the civilized European the means of restoring health, as well as preserving it.

Water drawn up from the ocean by the heat of the sun and suspended in the clouds, to be afterwards delivered in rain, is kept from hastily returning back from whence it came, by means of the earth which receives it, locks it up, and distributes it in a gradual manner. To the earth, our obligations are without number. She not only finds us food and raiment, when properly attended to, but supplies us with luxuries to render life still more comfortable.—But this is not all; for when labouring under disease, she kindly presents us with

healing plants, and from her bowels pours out her medicated streams. All this is under the direction of a wise and benevolent Being, who has a just claim upon our unbounded gratitude for the blessings bestowed upon us. I shall now proceed to the main subject of this Discourse.

After what has been ingeniously written on the *internal* use of these waters by Doctor Walker, and Doctor Garnet, it will be unnecessary for me to say much upon that department, as it would be entering upon a subject that can only be understood by medical men; but as their *external* use admits of a more plain and simple demonstration, I shall venture upon that department with more satisfaction, especially as the diseases of the skin are found to be more common than the diseases of the internal parts. And as a preliminary to this most valuable part of the practice, I shall beg leave to introduce the history of warm bathing from the most early times.

The custom of bathing in warm water, whether made artificially so, or flowing naturally from the earth, appears to have been very ancient, but we do not find it used so early with a view to remove diseases. Warm Baths were in great repute among the Eastern nations, as the Jews, Medes, Persians, and inhabitants of the lesser Asia; but probably they were at first used only as purifiers of the skin from dust and sweat, inconveniences to which those nations, from the warmth of their climate and manner of dress, must have been greatly liable. Luxury in a little time made Baths still more frequent; and we find that Xenophon in describing the effeminate manners of the Persians, calls them *Balneatores*, *Pocillatores*, &c. In the time of Hippocrates, we learn that bathing in springs of warm water was recommended with a medical intention; and perhaps this is the most early authority we can produce of their use in medicine. Plato recommends them in several diseases, as well as for their admirable faculty in restoring strength and vigour to

bodies worn out by hard labour. Aretæus, who seems to have been prior to Galen, in many places takes notice of the admirable effects of warm bathing in various diseases, as abundantly appears in his Treatise on Temperaments, in which there are given particular directions for bathing patients emaciated by hectic fever.

A great deal more of the practice with respect to bathing in natural and artificial warm waters, may be seen in the works of Cælius Aurelianus, Oribasius, Aëtius, Alexander Trallianus, and Paulus Ægineta.

It does not appear from any part of ancient history, that the Romans made use of either natural, or artificial warm Baths, till they became acquainted with the *Greeks* and *Asiatics*, among whom warm bathing was carried to a great excess. At first, the rich established Baths in their own houses, for the convenience of themselves and visitors; but in a little time the custom of bathing became so prevalent, that it was

esteemed to be as essential to health as nourishment itself. Hence we find the State provided Baths for the poorer citizens, where they had the liberty of bathing at a small expense, as we learn from Horace ;

—————dum tu quadrante lavatum

Rex ibis. —————

Agrippa, in his Ædileship, is said to have built upwards of one hundred public Baths. After his example, *Nero, Vespasian, Titus, Domitian*, and many of the succeeding Emperors, with a view to gain the affections of the people, erected public Baths, enriched with the finest marble, and built according to the rules of the most delicate architecture. At the first institution of private Baths among the most wealthy citizens, it does not appear that they studied magnificence so much as use and convenience ; but as soon as the Roman conquests became considerable, and the practice of pillaging the provinces began, we find they altered the original plainness and simplicity

of their Baths, and vied with each other in the elegance and grandeur of them. Of these the Poet Statius says ;

Nil ibi Plebeium, nusquam Tomesæa notabis
 Æra, sed argento felix propellitur unda,
 Argentoque cadit, labrisque nitentibus instat
 Delicias mirata suas, et abire recusat.

These superb Baths, however, were far inferior in beauty and extent to those called *Thermæ*, which were almost all built by the emperors for the public use, and in which their principal view seems to have been to display their magnificence, nothing being omitted that could heighten the idea of it.

Besides a number of rooms and other conveniences set apart for bathing, there were places allotted, in these extensive buildings, for all the manly exercises of the body, as leaping, running, wrestling, throwing the discus, &c. and even for those of the mind, as it was customary for the rhetoricians and philosophers to assemble daily under the porticos for the instruction

of the youth. They also contained libraries, to which the studious were invited ; witness the famous *Bibliotheca Ulpia*, which had been placed by the emperor *Trajan* in the *Forum Trajani*, but afterwards removed to the Baths of *Dioclesian*.

It may not be improper to observe, that at these places persons of all ranks met to discourse upon the news of the city : Hence we may understand the reason why the poets gave them the epithet of *Garrulæ*. Works of genius and learning, as well as wit and humour, were frequently read there.

And here I beg leave to embrace the favourable opportunity that now offers, of expressing a wish that this room may, in like manner, be the means of contributing to the health and amusement of a numerous society. I dare venture to say, that it was not built from a monied speculation ; but the foundation was laid for the accommodation of the public, and only with

the reasonable expectation of its producing common interest for the money expended.

The *Thermæ* of *Dioclesian* and *Caracalla* were the most extensive and remarkable of any built by the emperors, of which many parts are still remaining. *Lipsius* assures us, that those of *Caracalla* were so extensive, that two thousand persons might bathe in them at the same time; and we are told, that no less than forty thousand Christians were employed many years in erecting the magnificent ones of *Dioclesian*.

The pavement of these *Thermæ* was of marble and mosaic work, and the walls were covered with paintings of great value; but the prodigious number of marble statues, figures, and vases, brought from the conquered cities of *Greece* and *Asia*, constituted their greatest ornament. These, with the striking grandeur of the architecture, the beautiful and stately pillars, the curious vaulting of the roofs, and the num-

ber of spacious apartments, serve conspicuously to show the riches and grandeur of the *Roman* emperors.

Thus much for the general account of the ancient Baths, the truth of which is confirmed by the concurring testimonies of antiquity. As to the parts immediately subservient to bathing, we find them but very imperfectly described, both by the ancients and moderns. *Titurcius*, amongst the ancients, has given us their internal structure ; but upon a minute examination, he will be found to differ essentially from other writers upon the same subject. Public buildings, erected for convenience as well as ornament, may very well be expected to differ in the disposition of the parts intended for use ; and that may account for the various descriptions transmitted to us of the internal parts of the ancient Baths. *Mountfaucon*, in his *Antiquities*, has given us a fine view of the inside of a Roman Bath, from a painting found in the *Thermæ* of *Titus*, which represents all the parts very distinctly.

According to the best Authors, the place set apart for bathing consisted of six rooms, which had a ready correspondence with each other. There was first the *Frigidarium*, where the bathers undressed and rubbed; then the *Tepidarium*, or warm room, where they remained till the pores of the skin were gently opened; from thence they went into the *Laconicum*, which was some degrees warmer; and after staying there a short time they passed into the *Sudatio*, or sweating-room, where they were again rubbed, and sometimes anointed with oil; from thence they directly entered the hot Baths. The floors of these hot rooms were hollow on account of the *Hypocaustum*, which was a large furnace underneath, supplied with wood, the heat of which was communicated to the stoves by means of the vacuity. The same furnace also heated another room, called *Vasarium*, situated near the stoves, wherein were placed three large vessels, called *Milliaria*, by reason of their capacity, one for hot water, another for warm water,

and a third for cold, being so contrived that the water might be readily distributed by pipes and cocks into the neighbouring Baths, according to the occasion of the Bathers.

I must here observe, that the room called *Laconicum*, is wanting in the painting above-mentioned, and the word is wrote over a kind of furnace; but *Vitruvius* expressly mentions it not as a furnace, but as a sweating-room. Some pretend that it was the same as the *Tepidarium*; but I have ventured to proceed upon the authority of *Vitruvius*, who expressly says, that the *Laconicum* and *Sudatio* are to be joined to the *Tepidarium*. *Laconicum Sudationesque sunt conjugendæ Tepidario*. Vitruv. v. x. by which he plainly distinguishes these three places.

The method of bathing was there very different from what is practised with us, for they never had their whole bodies immersed in water, unless by direction of the

Physician. They usually seated themselves in the Bath upon a low seat, or stool, called *Solium*, with their legs, and sometimes their thighs, covered by the water. In the mean time, the water, tempered according to their inclination, was poured upon their heads and shoulders, by slaves, from urns made for that purpose. Their bodies were well rubbed with a sponge, and scraped with a crooked instrument called a *Strigil*. This operation being finished, they returned to the *Sudatio*, where they remained a short time; and passing through the *Laconicum* went into the *Tepidarium*. From thence they repaired to the *Frigidarium*, where they usually received a sprinkling of cold water; after which they were conducted into a room called *Elæothesium*, where they were wiped dry and anointed with perfumed oils, and then dismissed to supper.

The vessel in which they bathed seems to have been contrived to receive only one person at a time, and was either of marble,

oriental granate, or porphyry, though of an extraordinary size, as may be judged from those which have been found in the ruins of the antient *Thermæ*. Besides these large bathing vessels, there were reservoirs of cold water for such as desired to exercise themselves in swimming; so that nothing was wanting that could add to the grandeur of the founder, or contribute to the health or amusement of the citizens.

At the first establishment of public Baths, there were distinct ones for the men and women; but in a little time they became common, with this difference, that each was waited on by slaves of their own sex. *Adrian*, perceiving the indecency of this custom, published an edict, prohibiting the promiscuous bathing of the sexes. *Marcus Aurelius* did the same; but *Heliogabalus* suppressed those ordinances, which were again revived, but with little success, by *Alexander Severus*: so that this indecent custom subsisted a considerable time, even among the Christians, notwithstanding the

many remonstrances of the ministers of the church, and was not entirely abolished till some time after the death of *Constantine the Great*.

I have enlarged so much on ancient bathing, in hopes that the latter part, regarding the promiscuous bathing of the sexes, may reach the ears of these who direct the Baths in Somersetshire, where promiscuous bathing still continues to be practised.

When first the sulphur water of this place was discovered, it was only attended to as a remedy for sores and diseases of the skin ; but as soon as its purgative quality was made known, it soon became famous for dislodging worms from the bowels of children and grown up persons. And now I am upon the subject of worms, it will be expected that I should explain the mode by which these waters act in their extermination of worms. It is the received opinion that they act *specifically* ; but I am clearly and decidedly of opinion, that their

action is almost wholly *mechanical*, and for an illustration of my opinion, I shall select the Tape-worm. This species of worm is found in the bowels of sea-faring persons, who, when on shore in warm climates, especially the coast of Guinea, are induced to drink the stagnant waters of pools and ditches; but its appearance is not uncommon in this country. In the stagnant waters of every country are found the ova of the *Tape-worm*, described by naturalists under the name of the *Gourd-worm*, from the resemblance of its joints to the seeds of the gourd, and sometimes it is called the *Tape-worm*, from its likeness to a piece of tape. It is usually of the length of three feet, but it has been seen to the extent of many yards. Having the whole of its body of a soft and delicate nature, it can only support its situation by following the convolutions of the bowels. However singular I may be in my opinion, it certainly is not *one* worm, but an assemblage of *many*, with their heads and tails instinctively conjoined for their mutual safety: A principle, observable throughout all animated nature.

Each joint has a protuberance on its side, by which it draws in its nourishment. I once kept a worm of this kind, near two yards in length, and found that it consumed about half a pint of warm milk every twenty-four hours. It being my present intention only to demonstrate how it may be removed, I shall say nothing of the symptoms by which its presence may be known, as that would lead me into a field of too great an extent. As no medicine has ever been discovered that *specifically* affects this kind of worm, we must seek for its expulsion from a medicine possessed *only* of a *mechanical* action; and that will be found in the raspings of tin, a medicine that I have long and successfully prescribed. When this ponderous body has been taken in sufficient quantity, it will mechanically press upon the first joints of the worm, and force them down into a globular form, at which critical time, a full dose of the sulphur water should be given. The operation here recommended, is similar to what, in the mining countries, is termed *hushing*, being the sudden descent of a large body of

water, artificially collected. And here I beg leave to observe, that tin has no effect upon the common round worm, which only can be removed by medicines that act *specifically*, as well as *mechanically*. This observation applies equally to the *Ascarides*, a species of worm not easily to be radically removed, owing to its speedy multiplication.

My time will not allow me to proceed with the different diseases of the skin, for the removal of which these waters are justly celebrated. I must, therefore, postpone that examination to a future day, when I shall take occasion to make some general remarks upon bilious, and other complaints for which these waters are usually prescribed.